



## FEBRUARY 2018 NEWSLETTER

### UPCOMING CE—UNDERSTANDING AND DIAGNOSING THE GUMMY SMILE

This course will discuss the concept of the “gummy smile.” We will review how the gummy smile is perceived among dental professionals as well as among the community in general. We will discuss how to assess patients who may present with a gummy smile and understand contributing factors, such as excess gingiva, tooth size and shape, as well as extra oral factors like lip mobility and facial form and shape. We will also review how natural teeth develop their relationship with hard and soft tissue, as well as medical conditions that may potentially affect gingival esthetics.

This program will introduce various strategies to treat the gummy smile. In many cases, this condition is multi factorial in nature. Therefore, our conversation will involve how to incorporate different members of our multi disciplinary team to provide an optimal outcome. We will also focus on periodontal and restorative treatment options that will allow us to offer very predictable solutions that will make a big impact for many of our patients.

### SOCKET SHIELD TECHNIQUE FOR RIDGE PRESERVATION

Healing of extraction sockets are characterized by bone formation within the socket and loss of the alveolar ridge width and height. The alteration in ridge contour may require that a dental implant be placed in a less than ideal position and angulation and further compromise the esthetic and function outcome of the resulting implant retained restoration. In the esthetic region, especially, the height and thickness of facial and interproximal bone walls are important factors in optimizing the color, shape, and character of the marginal peri-implant mucosa and the presence of interdental papilla.

Different techniques such as immediate implant placement (Botticelli D et al, 2006), and ridge preservation procedure (Fickl S et al, 2008) have been proposed to maintain the ridge dimension. Immediate implant placement is a predictable procedure to accomplish osseointegration (Hartog et al, 2009) However, the biological response to tooth extraction, such as marked resorption of the buccal bone plate, is not altered when an implant is installed into the socket (Vignoletti F et al, 2009; Araujo MG et al, 2005; Botticelli D et al, 2004). While guided bone regeneration and soft tissue augmentation around immediate implants provide highly esthetic outcomes in many instances, these are not perfect solutions to the issue of alveolar ridge resorption. These techniques can only partly compensate but can not prevent the resorption process (Esposito et al, 2009). In GBR, flap elevation and overbuilding the buccal contour may be necessary for a predictable, esthetic result.

Araújo and Lindhe suggested that following tooth extraction, the blood vessels in periodontium and thin alveolar bone walls are severed, thereby causing facial bone plate resorption. Therefore, it has been suggested that retaining a segment of a root along the facial alveolar bone wall (**Socket Shield**) may prevent this event from occurring and reduce or eliminate facial bone resorption following the extraction of a tooth. Similar to this idea, Salama et al (2007) recommended a root submergence technique in which a natural tooth root was maintained and the surrounding tissue allowed to heal over to establish an esthetic pontic site underneath an anterior Fixed Partial Denture.

Hürzeler et al (2010) introduced the socket shield technique, in which a partial root fragment was retained around an immediately placed implant with the aim of avoiding tissue alterations after tooth extraction. No bone is placed in the socket. Preliminary studies involving implants placed in beagle dogs showed no resorption of the root fragment. Their clinical case demonstrated excellent buccal tissue preservation and clinically successful osseointegration of the implant. Joseph & Kitichai (2013) reported an alternative approach in a case utilizing a retained proximal root fragment to maintain the inter-implant papilla.

A clinical case presented by Chen CL et al (2013) (Figure 1) demonstrates a successful application of this technique in replacing a hopeless tooth #4

Socket shield technique meets the demands of minimal invasion, tissue preservation, and no need of bone substitute materials. Baumer et al (2013) proved that the remaining tooth segments showed healthy periodontal ligament on the buccal side and no osteoclastic remodeling of the coronal part of the buccal plate.

March 28, 2018  
5:30 dinner, 6:00 presentation  
OSU Fawcett Center– Club Room  
2400 Olentangy River Road

To RSVP, contact our office by March 26, 2018  
(614) 451-1122

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**FIGURE #1:** Tooth #4—non restorable palatal fracture (above) Root shield (facial root fragment) with immediate implant placement. Restoration placed after four months of healing (Below)



(Chen CL et al, 2013)

